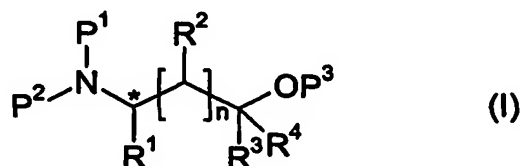


## Claims:

1. Process for the hydrogenation of aliphatic-substituted aromatic or heteroaromatic compounds having an asymmetrical C atom,  
 5 characterised in that the hydrogenation is performed in the presence of a platinum-rhodium mixed catalyst.
2. Process for the hydrogenation of the aromatic nucleus of compounds having the general formula (I)



- 10 wherein  
 n can be 0,1,2  
 $\text{R}^1$  represents unsubstituted or substituted ( $\text{C}_6\text{-C}_{18}$ ) aryl, ( $\text{C}_7\text{-C}_{19}$ ) aralkyl, ( $(\text{C}_1\text{-C}_8)$  alkyl) $_{1-3}$  ( $\text{C}_6\text{-C}_{18}$ ) aralkyl ( $(\text{C}_1\text{-C}_8)$  alkyl) $_{1-3}$  ( $\text{C}_6\text{-C}_{18}$ ) aryl, ( $\text{C}_3\text{-C}_{18}$ ) heteroaryl, ( $\text{C}_4\text{-C}_{19}$ ) heteroaralkyl, ( $(\text{C}_1\text{-C}_8)$  alkyl) $_{1-3}$  ( $\text{C}_3\text{-C}_{18}$ ) heteroaryl,  
 $\text{R}^2$  denotes H, OH, ( $\text{C}_1\text{-C}_8$ ) alkyl, ( $\text{C}_2\text{-C}_8$ ) alkoxyalkyl, ( $\text{C}_6\text{-C}_{18}$ ) aryl, ( $\text{C}_7\text{-C}_{19}$ ) aralkyl, ( $\text{C}_3\text{-C}_{18}$ ) heteroaryl, ( $\text{C}_4\text{-C}_{19}$ ) heteroaralkyl, ( $(\text{C}_1\text{-C}_8)$  alkyl) $_{1-3}$  ( $\text{C}_6\text{-C}_{18}$ ) aryl, ( $(\text{C}_1\text{-C}_8)$  alkyl) $_{1-3}$  ( $\text{C}_3\text{-C}_{18}$ ) heteroaryl, ( $\text{C}_3\text{-C}_8$ ) cycloalkyl, ( $(\text{C}_1\text{-C}_8)$  alkyl) $_{1-3}$  ( $\text{C}_3\text{-C}_8$ ) cycloalkyl, ( $\text{C}_3\text{-C}_8$ ) cycloalkyl ( $\text{C}_1\text{-C}_8$ ) alkyl,  
 $\text{R}^3$  and  $\text{R}^4$  together denote an =O function or H or ( $\text{C}_1\text{-C}_8$ ) alkyl, ( $\text{C}_6\text{-C}_{18}$ ) aryl,  
 $\text{P}^1$  and  $\text{P}^2$  mutually independently stand for hydrogen or an amino protective group or together stand for a bifunctional amino protective group,  
 $\text{P}^3$  represents hydrogen or a hydroxyl protective group or carboxyl protective group and

the C atom marked with \* is an asymmetrical C atom, characterised in that the hydrogenation is performed in the presence of a platinum-rhodium mixed catalyst.

- 5    3.    Process according to claim 1 and/or 2,  
characterised in that  
aromatic amino acids or aromatic-substituted amino  
alcohols are hydrogenated.
- 10    4.    Process according to one or more of claims 1 to 3,  
characterised in that  
a ratio of platinum to rhodium of between 20:1 and  
1:1 (w/w) is used in the catalyst.
- 15    5.    Process according to one or more of claims 1 to 4,  
characterised in that  
the catalyst is used in a quantity of 0.1 to 20 wt.%,  
relative to the compound to be hydrogenated.
- 20    6.    Process according to one or more of the preceding  
claims,  
characterised in that  
the catalyst is adsorbed on a support.
- 25    7.    Process according to one or more of the preceding  
claims,  
characterised in that  
the hydrogenation is performed in the presence of  
solvents selected from the group comprising water,  
alcohols, ethers or mixtures thereof.
- 30    8.    Process according to one or more of the preceding  
claims,  
characterised in that  
the hydrogenation is performed under hydrogen  
pressures of between 1 and 100 bar.

9. Process according to one or more of the preceding claims,  
characterised in that  
the hydrogenation is performed at temperatures of  
10°C to 150°C.
- 5